IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
    Williams, et al.

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Confirmation No.:   6926

Serial No.:   10/690,860

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Group Art Unit: 2135

Filed: October 22, 2003

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Examiner: Leynna Thanh Truvan

For: METHOD AND APPARATUS
       FOR CONTENT
       PROTECTION

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MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL CONFERENCE BRIEF

Dear Sir:

In conjunction with the Pre-Appeal Brief Request for Review filed herewith, Applicant requests a Panel review of the Final Rejection in this matter (see the Final Office Action dated July 2, 2007). Although the remarks herein are focused on a specific factual issue raised by the rejection, nothing in this paper is meant to limit the scope of any arguments, either factual or legal, that Applicant may later present in a full appeal brief.

QUESTIONS FOR REVIEW

The Examiner rejects claims 1-25 and 34-36 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner rejects claims 1-25 and 34-36 under 35 U.S.C. §103(a) as unpatentable over Ryan (U.S. 6,374,036) in view of Fukushima (U.S. 6,388,638) and in further view of Gonzales (U.S. 2007/0005795). The Examiner's rejections are respectfully traversed. Specifically, Applicants disagree with the Examiner's position that the limitation of "a portion of the frame" is not disclosed in the specification. Applicants also disagree with the Examiner's position that the combination of Ryan, Fukushima, and Gonzales teach or suggest the limitations of (i) altering image content within the rendering unit in response to tags in a data stream provided thereto, wherein the image content is a portion of the digital content visible to a viewer and (ii) that the alterations of the image content are not visually perceptible for real-time display, but are visually perceptible in a recorded version thereof.

846114_1

ARGUMENTS SUBMITTED

The Examiner alleges that the limitation of "a portion of the frame being modified from a preceding frame in the sequence," recited in claims 1 and 7, is not disclosed in the specification. Figures 5A through 5E illustrate an image for a sequence of frames that is described in paragraph [0032] of the specification as originally filed. "Image 500 of Figure 5A includes a picture 501, a desk 502, a person 503 and a filing cabinet 504." The filing cabinet 504 is a portion of the frame shown in Figure 5A. As shown in Figure 5B, "a part of the scene," specifically, the filing cabinet 504, is removed in a subsequent frame in the sequence of frames. A portion of the frame in Figure 5B is modified from the preceding frame in the sequence, the frame in Figure 5A, to remove the filing cabinet 504. Similarly, a portion of the frame in Figure 5C is modified from the frame of Figure 5A or 5B. Specifically, the portion of the frame including person 503 is modified from the preceding frame in the sequence of frames to remove person 503. Finally, a portion of the frame in Figure 5D is modified from the frame of Figures 5A, 5B, or 5C. Specifically, the portion of the frame including text message 511 and character 512 is modified from the preceding frame in the sequence of frames to insert the text message 511 and character 512. The use of "a portion" in claims 1 and 7 is consistent with the dictionary definition, "A section or quantity within a larger thing; a part of a whole" (see *The American Heritage® Dictionary of the English Language, Fourth Edition*. Retrieved October 06, 2008, from Dictionary.com website: http://dictionary.reference.com/browse/portion). For these reasons, the Examiner's rejection cannot be supported and must be withdrawn.

Claims 1 and 7 recite the limitations of (i) altering image content within the rendering unit in response to tags in a data stream provided thereto, wherein the image content is a <u>portion of the digital content visible to a viewer</u>, and (ii) the alterations of the image content are not visually perceptible for real-time display, but <u>are visually perceptible in a recorded version</u> thereof. Ryan, Fukushima, and Gonzales fail to teach or suggest these limitations.

As set forth in Figures 10A-B and 11A-B as well as in paragraphs [0055] and [0056] of the present application, digital content may be viewed both in real-time and as recorded. In real-time, the digital content appears to viewers to be un-altered (as shown in Figure 10A, for example) such that the viewing experience is not impacted. However, when viewing a recorded version of the content, the digital content appears with alterations. For example, the digital content may include additional objects (as shown in Figure 10B and described in paragraph [0055] of the specification). Portions of the digital content may be cloaked or distorted according to different content ratings (see paragraph [0043] of the specification). Importantly, portions of the image content that are visible to a viewer are altered and the alterations of the

Page 2

image content are visually perceptible in a recorded version. Claims 1 and 7 clearly recite these limitations.

In contrast to the claimed approach, Ryan teaches a "copy once" mechanism that allows a single recording of digital content. In order to enable recording of a single copy of video content, frame markers are inserted into the video signal. The Examiner relies on the disclosure of inserting the frame markers as teaching "altering image content" (see col. 3, lines 18-22). Ryan clearly teaches in col. 3, lines 59-63 and col. 7, lines 40-43 that "the field marker is typically inserted in the <u>invisible</u> portion of the active video, i.e., with regard to television sets in the overscan region." Thus, Ryan teaches altering the portion of digital content that is <u>not visible</u> to the viewers. Therefore, Ryan's approach does not alter image content that is a portion of the digital content visible to a viewer as recited in claims 1 and 7.

Furthermore, Ryan describes a recording device that copies video frames <u>after</u> determining a recordation of a copy is authorized (see col. 4, lines 59-63). Since the recording has been authorized, the copy matches the original; thus, any alterations of the image content are <u>not</u> visually perceptible in the recorded version. In fact, as recognized by those skilled in the art, it is undesirable for portions of the recorded content that are visible to a viewer to differ from the original video frames. Copy protection mechanisms are normally design such that they do not interfere with producing an exact copy of the image content. Ryan does not teach or suggest anything to the contrary. In sort, Ryan simply does not teach or suggest that alterations of the image content are visually perceptible in a recorded version, as clearly recited in claims 1 and 7.

In addition, with regard to claims 1 and 7, the Examiner relies on Gonzales only for the teaching of an action table. The Examiner relies on Fukushima only for teaching that the alterations of the digital content are not visually perceptible for real-time display. Therefore, as admitted by the Examiner, Fukushima and Gonzales each fail to teach or suggest the limitations of (i) altering image content within the rendering unit in response to tags in a data stream provided thereto, wherein the image content is a <u>portion of the digital content visible to a viewer</u>, and (ii) the alterations of the image content are not visually perceptible for real-time display, but <u>are visually perceptible in a recorded version</u> thereof, thereby failing to cure the deficiencies of Ryan set forth above.

As the foregoing illustrates, no combination Ryan, Fukushima, and Gonzales can render claims 1 and 7, or the claims dependent thereon, obvious.

Additionally, claim 3 recites the limitation of removing an object visible to the viewer from a frame. The Examiner relies on col. 7, lines 10-20 of Ryan for disclosing this limitation. In col.

846114_1

7, lines 10-17 Ryan explains that an attempt by a hacker to bypass the copy-once authorization mechanism will "seriously degrade the entertainment value of the program." A statement that human attempts to modify the authorization mechanism taught by Ryan does not rise to the level of a teaching or suggestion that an object visible to the viewer is removed from a frame. Therefore, the subject matter of claim 3 is allowable for this additional reason.

In col. 7, lines 18-20 Ryan describes computing an attribute value by adding and subtracting voltage values for regions of video frames. Computation of the attribute value does not alter the image (see col. 5 lines 14-29). Nowhere does Ryan teach or suggest removing an object visible to a viewer from a frame. The Examiner also relies on col. 7, lines 18-20 for teaching the limitations of relocating an object and adding an object, where the object is visible to the viewer. These limitations are recited by claims 4 and 5, respectively, and are not taught or suggested by Ryan. Thus, claims 4 and 5 are also allowable for this additional reason.

The Examiner relies on col. 6, lines 28-38 of Ryan for disclosing the limitation recited in claim 8, "wherein the rendering unit includes a table for storing symbols used when associating the detected tags with the commands." In col. 6, lines 28-38 Ryan describes comparing a measured attribute to the 4 extracted attribute bits to enable recording. Ryan fails to teach or suggest a table for storing symbols, thereby placing claim 8 into condition for allowance.

The Examiner relies on col. 6, lines 39-42 for disclosing the limitation recited in claim 9, "wherein the rendering unit comprises memory for storing overlays for alteration of the image content." In col. 6, lines 39-42 Ryan describes circuitry "to change the copy-once bit to the copy-never value during recording." Ryan fails to teach or suggest memory for storing overlays, thereby placing claim 9 into condition for allowance.

The Examiner relies on col. 6, lines 48-50 for disclosing the limitation recited in claim 12, "wherein the rendering unit comprises a decryptor." In col. 6, lines 48-50 Ryan describes that a hacker may attempt to bypass the authorization mechanism and "decode" the watermark. As described in col. 6, line 2, decoding of the watermark is performed by extracting the attribute value from the watermark. Nowhere does Ryan teach or suggest that the rendering unit includes a decryptor or that the rendering unit performs decryption, thereby placing claim 12 into condition for allowance.

The Examiner relies on paragraphs [0426]-[0427] of Gonzales for disclosing the limitation recited in claims 14 and 15, "provides a graphics user interface in response to" a detected watermark or threshold number of watermarks. Gonzales describes a computing device providing "a user interface into the virtual computing network." The user interface of Gonzales is not provided in response to detection of a watermark. Gonzales fails to teach or

Page 4

suggest the limitation recited in claims 14 and 15, thereby placing these claims into condition for allowance.

The Examiner relies on col. 6, lines 25-29 of Ryan for disclosing the limitation recited in claim 17, "wherein the rendering unit is configured to down sample in response to a failure to enter an acceptable key." Nowhere does Ryan teach or suggest this limitation, thereby placing claim 17 into condition for allowance.
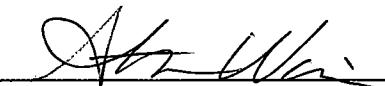
The Examiner relies on col. 4, lines 62-64 of Ryan for disclosing the limitation recited in claim 18, "wherein the rendering unit is configured to disable recording in response to a failure to enter an acceptable key." Ryan describes disabling recording when a computed attribute fails to match an extracted attribute. Nowhere does Ryan describe disabling recording in response to failure to enter an acceptable key, thereby placing claim 18 into condition for allowance.

The Examiner relies on col 3, lines 15-18 of Ryan for disclosing the limitation recited in claim 19, "wherein the rendering unit is configured to randomly alter the selected frames in response to enter an acceptable key." In col. 3, lines 15-18 Ryan describes randomly choosing frames for the attribute calculation (during encoding). As previously explained, computation of the attribute does not alter the image. Ryan fails to teach or suggest randomly altering selected frames, thereby placing claim 19 into condition for allowance.

The Examiner relies on col. 3, lines 24-26 for disclosing the limitation recited in claim 20, "wherein the device is a digital video camera." Nowhere does Ryan teach or suggest that the device is a digital video camera, thereby placing claim 20 into condition for allowance.

For the aforementioned reasons, all of the claims currently pending in the application are therefore patentable over Ryan, Fukushima, and Gonzales. In view of these clear distinctions, reconsideration and allowance of all the claims is respectfully requested.

Respectfully submitted,

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